

CLAIMS

1-41. (Canceled)

42. (currently amended) A method for providing a capacitor comprising the steps of:

providing a tantalum anode;

providing a cathode;

activating said anode and said cathode with an electrolyte comprising:

about 35-60%, by weight water;

about 10-55%, by weight organic solvent excluding ethylene glycol, formamide, dimethyl formamide and γ -butyrolactone;

about 0.05 to 30%, by weight, at least one acid selected from sulphuric, boric acid and phosphorus oxy acid;

wherein said electrolyte has a pH below about 5 and a freezing point below about -30°C .

43. (previously presented) A method according to claim 42
wherein said acid comprises sulphuric acid and at least one
acid selected from boric acid and phosphorus oxy acid.
44. (previously presented) A method according to claim 43
wherein said acid comprises sulphuric acid, boric acid and
phosphorus oxy acid.
45. (previously presented) A method according to claim 44
wherein said electrolytic solution comprises: about 0.05 to
10%, by weight, sulphuric acid;

about 0.05 to 10%, by weight, boric acid; and

about 0.05 to 10%, by weight, phosphorus oxy acid.
46. (previously presented) A method according to claim 42
wherein said solvent is selected from a group consisting of
glycerol, 1,3-propane diol; 2-methyl-1,3-propane diol;
propylene glycol; polyethylene glycol monomethyl ether; N-
alkyl-2-pyrrolidone and diethylene glycol.
47. (previously presented) A method according to claim 46
wherein said solvent is glycerol.

48. (previously presented) A method according to claim 46
wherein said solvent is 1,3-propane diol.
49. (previously presented) A method according to claim 46
wherein said solvent is 2-methyl-1,3-propane diol.
50. (previously presented) A method according to claim 46
wherein said solvent is propylene glycol.
51. (previously presented) A method according to claim 46
wherein said solvent is polyethylene glycol monomethyl
ether.
52. (previously presented) A method according to claim 42
wherein said phosphorus oxy acid is orthophosphoric acid.
53. (previously presented) A method according to claim 42
wherein said phosphorus oxy acid is phosphorous acid.
54. (previously presented) A method according to claim 46
wherein said cathode is a conductive metal provided with a
semiconductive or metal-like conductive coating.
55. (previously presented) A method according to claim 54
wherein said cathode is at least one element chosen from a

group consisting of an oxide, a nitride, a carbide of a metal or an activated carbon.

56. (previously presented) A method according to claim 55 wherein said cathode comprises a metal selected from a group consisting of tantalum, titanium, nickel, iridium, platinum, palladium, gold, silver, cobalt, molybdenum, ruthenium, manganese, tungsten, iron, zirconium, hafnium, rhodium, vanadium, osmium and niobium.

57. (previously presented) A method according to claim 56 wherein when said acid comprises sulphuric acid, sufficient buffering material is added to raise the pH to a level sufficient to avoid dissolution of components of manufacture of said capacitor.

58. (previously presented) A method according to claim 54 wherein said cathode comprises a porous ruthenium oxide film provided on a titanium substrate.

59. (previously presented) A method according to claim 42 wherein said electrolyte has a pH of less than about 4.

60. (previously presented) A capacitor prepared by the method
according to claim 42.

61-64. (canceled)